

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number
WO 2005/064637 A1

(51) International Patent Classification⁷: **H01J 9/52**

(21) International Application Number:
PCT/KR2004/002012

(22) International Filing Date: 11 August 2004 (11.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10-2003-0101388
31 December 2003 (31.12.2003) KR

(71) Applicant (for all designated States except US): **SAM-SUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 442-742 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIM, Joong-Hyun** [KR/KR]; 305, #489-3, Sanggal-ri, Giheung-eup, Yongin-si, Gyeonggi-do 449-905 (KR). **JANG, Hyeon-Yong** [KR/KR]; 116-1104 Unam Jugong Apt., Busan-dong,

Osan-si, Gyeonggi-do 447-050 (KR). **LEE, Sang-Yu** [KR/KR]; 107-1601 Samsung raemian Apt., #629 Guseong-myeon, Yongin-si, Gyeonggi-do 449-910 (KR).

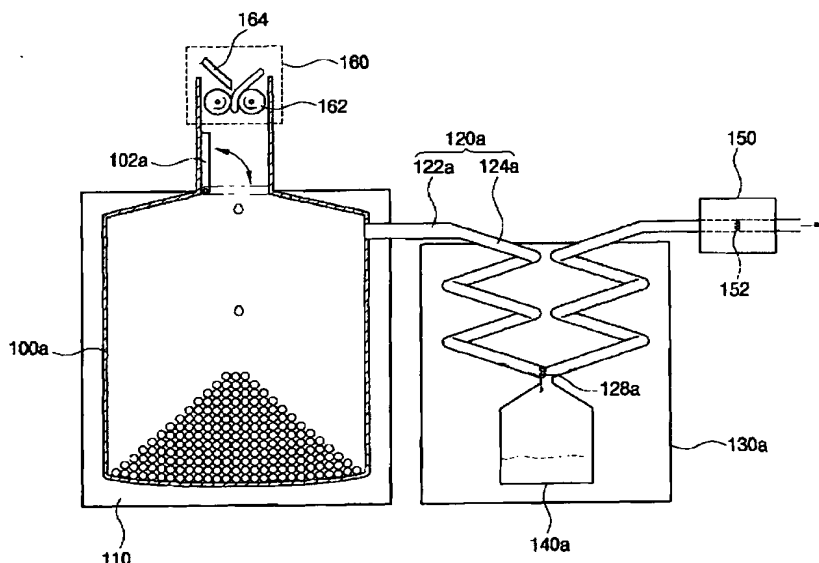
(74) Agent: **PARK, Young-Woo**; 5F, Seil Building, #727-13, Yoksam-dong, Gangnam-gu, Seoul 135-921 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD OF RECYCLING FLUORESCENT LAMP



(57) Abstract: In an eco-friendly method of recycling a fluorescent lamp capable of reducing energy consumption and a recycling apparatus for performing the recycling method, broken pieces of fluorescent lamps are heated at a temperature of about 100° to about 330° to form a gas containing a mercury vapor. The gas containing the mercury vapor is cooled at a temperature of about -38° to about 0° to form a liquid mercury. The liquid mercury is collected. Therefore, the broken pieces of the fluorescent lamps are heated at the temperature no higher than the boiling point of mercury so that an energy consumption and a size of the recycling apparatus are decreased, and a probability for the recycling apparatus to malfunction may also be decreased.



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.